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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,208	12/08/2003	Jeanette M. Cardamone	0043.03	2504
25295	7590	01/26/2006		
USDA, ARS, OTT 5601 SUNNYSIDE AVE RM 4-1159 BELTSVILLE, MD 20705-5131			EXAMINER KHAN, AMINA S	
			ART UNIT 1751	PAPER NUMBER

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,208	CARDAMONE ET AL.	
	Examiner	Art Unit	
	Amina Khan	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 November 2005 and 10 January 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-26 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-26 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Pending claims are claims 1-26. Applicant's arguments filed on November 15, 2005 have been fully considered and are persuasive. The 35 USC 103(a) rejection of claims 1-14 in view of Smets et al. (US 6,541,438), Gardner et al. (US 2003/0092598 A1) and Wagner et al. (US 3,702,776) has been withdrawn.

New Grounds of Rejection

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1,6,12,14,15, 17 and 19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rizzardi et al. (US 2002/0007515).

The prior art of Rizzardi et al. teaches processes for treating cellulosic fibers and fiber blends with synthetic fibers by contacting fibers with compositions comprising caustic soda, which meets the claimed limitation of NaOH, H₂O₂ (page 2, paragraph 0016), gluconic acid (page 2, paragraph 0017), ethoxylated and/or propoxylated fatty alcohols (page 2, paragraph 0023), which meets the claimed limitation of non-ionic surfactant, and dicyandiamide (page 2, paragraph 0018), which meets the claimed limitations of claims 1,6,15,17 and 19. The prior art further does not teach processes including treatment with diisochloroisocyanuric acid, chloroamines, peroxyomonosulfuric acid, monoperoxyphthalic acid, permanganate, chlorine gas, sodium hypochlorite, or aminoplast resins, which meets the claimed limitation of claim 12. Rizzardi further teaches cotton knit materials treated with the compositions of Table 1 (page 2, paragraphs 0026 and 0028) where ethoxylated and/or propoxylated fatty alcohols are taught as wetting/scouring agents (page 2, paragraph 0023), dicyandiamide is taught as a substitute for urea (page 1, paragraph 0014), and activating compounds of salts of gluconic acids may be substituted for copper gluconate, a transition metal salt (page 2, paragraphs 0016,0017 and 0019) as claimed in claim 14.

The prior art is silent about the claimed property "improving the shrink-resistance of natural fibers, synthetic fibers, or mixtures thereof" and does not explicitly teach this claimed limitation. However, it is reasonable to presume that said property is well within the scope of the teachings of the prior art because the presumption is supported by fiber treatment compositions with similar components to the instant application. The burden is on the applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594.

Accordingly, the teachings of Rizzardi et al. anticipate the material limitations of the instant claims.

Alternatively, even if the broad teachings of Rizzardi et al. are not sufficient to anticipate the material limitations of the instant claims, it would have been nonetheless obvious to one of ordinary skill in the art to arrive at the claimed improvement in shrink resistance, since the prior art teaches a process of fiber treatment utilizing compositions with components similar to the instant application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-5,7-11,13,16,18 and 20-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smets et al. (US 6,541,438) in view of Rizzardi et al. (US 2002/0007515).

The primary reference of Smets et al. teaches methods of treating fabrics (column 10, lines 42-43) to improve their anti-shrinkage properties (column 1, paragraph 7, lines 1-4) as instantly claimed. Smets further teaches methods of treating fabrics utilizing treatment compositions comprising NaOH (column 46, example 11), hydrogen peroxide (column 26, paragraph 2, line 1), protease (optional) (column 20, paragraph 7, lines 1-5), sodium sulphite (column 31, paragraph 3, lines 1-4), triethanolamine (column

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46, example 11) as instantly claimed and Triton X-114 or X-100 (column 15, paragraph 1, lines 2-4), which meets the claimed limitation of non-ionic surfactants of the structural formulas claimed in claims 2,4,5,7,8, 10, 11 and 13. Smets et al. further teaches methods of treating fabrics at temperatures between 10-60°C (column 35, lines 56-57) as claimed in claims 20-26.

Smets does not teach methods of treating fabrics with dicyandiamide or gluconic acid. Smets is silent about the subsequent steps of treating fabric with protease, non-ionic surfactants, sodium sulfite, and triethanolamine. However, Smets clearly suggests pre and post treatment of fabrics, which may include pretreating fabric followed by subsequent post treatment with protease, non-ionic surfactants, sodium sulfite, and triethanolamine since Smets et al. clearly suggests the use of these components in their compositions.

The secondary reference of Rizzardi et al., in the analogous art, teaches methods of treating cellulosic fabrics utilizing compositions comprising gluconic acid (page 2, paragraph 0017) and dicyandiamide (page 2, paragraph 0018) as instantly claimed.

Therefore, one of ordinary skill in the art would have been motivated to modify the methods of fabric treatment taught by Smets et al. by adding to the treatment compositions dicyandiamide and gluconic acid as taught by Rizzardi et al. because Rizzardi teaches the utility of these compounds in treating cellulosic fabrics. It is *prima facie* obvious to combine the teachings of the two references, each taught for the same purpose, to yield a third composition for that very purpose. *In re Kerkhoven*, 205 USPQ

1069, *In re Pinten*, 173 USPQ 801, and *In re Susi*, 169 USPQ 423. A person of ordinary skill in the cellulose fabric treatment art would expect combinations of these materials to behave in the same fashion as the individual materials, absent unexpected results.

It would further have been obvious to one of ordinary skill in the art with reasonable expectation of success that protease, non-ionic surfactant, triethanolamine, and sodium sulfite treatment could have been followed up as a subsequent treatment because the use of all these components is clearly taught by Smets.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is (571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Amina Khan
Amina Khan, PhD
Patent Examiner
January 12, 2006

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